



**Congratulations To
8/14/45 – Malmstrom Air Force Base – 8/14/67
On Their Silver Anniversary**

Volume 18 No. 9

September, 1967

**OREGON LADIES WIN FIRST,
MONTANA 99's BRING
HOME THREE TROPHIES**

Oregon's lady pilots carried home four trophies including first place wins in both the Private and Commercial categories from the 1967 99's Women's Air Games held on August 27th. Montana's 99's brought home three trophies and Idaho's 99 Ladies carried home one.

ROSTER OF WINNERS

Private:

1. Pilot Sally Stoddard, Portland, Ore. Co-Pilot, Dorothy Mercer, Vancouver, Wash.
2. Pilot, Doro Sokol, Prairie City, Ore. Co-Pilot, Christine Sokol, Prairie City, Ore.
3. Pilot, Jo Ann Walden, Great Falls. Co-Pilot, Rosemary Bowman, Belt.

Commercial:

1. Pilot, Lillian Lewis, Portland, Ore. Co-Pilot, Charmian Jones, Eugene, Ore.
2. Pilot, Pearl Magill, Glasgow. Co-Pilot, Beverly Ledbetter, Havre.



Montana Winners—Third place, Private, Co-pilot Rosemary Bowman, Pilot Jo Ann Walden. Second place, Commercial, Co-pilot, Beverly Ledbetter, Pilot Pearl Magill. Gas Consumption, Co-pilot Betty Nunn, Pilot Laulette Hansen.

3. Pilot, Gene Nora Jessen, Boise, Idaho. Co-Pilot, Mondy Stoke, Boise, Idaho.

Spot Landing:

Pilot, Lucy Drucker, Astoria, Ore.
Co-Pilot, Lillian Billings, Lake Oswego, Ore.

Gas Consumption

Pilot, Laulette Hansen, Havre. Co-Pilot, Betty Nunn, Billings.

The Air Games, sponsored by the Northwest Section of the Ladies 99's Inc., open to all licensed women pilots, was a navigational and gen-
(Continued on page 2, Col. 2)

**Official Monthly Publication
of the
MONTANA AERONAUTICS
COMMISSION**

**Box 1698
Helena, Montana**

Tim Babcock, Governor

Charles A. Lynch, Director

**Jack R. Hughes, Chairman
Peter H. Black, Vice Chairman
Clarence R. Anthony, Secretary
Carl (Bill) Bell, Member
Walter Hope, Member
E. B. (Ted) Cogswell, Member
Gordon R. Hickman, Member**



**NW's HELENA STATION
SETS NEW
"ON TIME" RECORD**

As of August 27th, 1967, the Helena Station of the Northwest Airlines had set a new all time "System Record."

**223 CONSECUTIVE DAYS
672 SUCCESSIVE FLIGHTS
WITHOUT A DELAY**

Congratulations, Helena Station and Flight crews of Northwest Airlines.

**THANK YOU-FLIGHT
MAGAZINE**

The August 1967 issue of Flight Magazine published an excellent article "West Yellowstone Airport . . . Model of Cooperation" (Page 51). The article gives background and facility information and a resume of the three years operation of Yellowstone Airport, "Montana's Gateway to Yellowstone Park." As an added feature, they list a number of the recreational opportunities in the surrounding area.

Another article appearing in the August issue of Flight is "Big Sky, Big Men" (Page 22), applauding the aviation commissions of the Western States. The article compliments their state officials, their services to pilots, and their airport/airstrip facilities. They are kind and encouraging words—and they are appreciated!! Thank You again, Flight Magazine.



**First place Commercial, Lillian Lewis of Portland, Ore.
First place Private, Sally Stoddard, Portland, Ore.**



**Second place Private, Doro Sokol,
Prairie City, Ore., receiving trophy from
Ralph McGinnis.**



**Third place Commercial, Gene Nora
Jessen, Boise, Idaho, receiving trophy
from Jack Wilson.**



**Spot Landing, Pilot Lucy Drucker ac-
cepts trophy from Mr. McGinnis.**



Master of Ceremonies, Pete Hill

eral flying knowledge and skill contest.

The Eastern Division had 14 entries, all Montanans, and started at Bozeman, Montana. The Western Division had 12 entries coming from Oregon, Washington and Idaho and started at Pendleton, Oregon. Both

divisions finished at Pocatello, Idaho.

The Awards Banquet was held at the Bannack Hotel in Pocatello, Idaho. Mr. Peter Hill of Idaho Falls was Master of Ceremonies. The Awards were presented by Mr. Ralph McGinnis, Deputy Director of the Idaho Aeronautics Department and Mr.

Jack Wilson, S&E Officer, Montana Aeronautics Commission.

The Route for the Eastern Division was: BOZEMAN — DILLON (Spot Landing Contest and Written Test. Montana Aeronautics Commission's Mr. Jack Wilson, Safety and Education Officer and Jerry Burrows, Safety and Education Technician handled the spot landing contest) — IDAHO FALLS (written exam) — POCATELLO (Light Signal and Parking).

The Oregon gals certainly did a very fine job of planning and coordinating the race procedures. Division Chairmen were:

East Start: Kay Widmer, Bozeman, Montana; Winifred Lovelace, Bozeman, Montana.

West Start: Barbara Daufel, Lake Oswego, Ore.; Jo Neal Harris, Portland, Ore.



Wrong Way award winners, Pilot Sue Ward, Co-pilot Vivian Schrank. "It was a great ride anyway."

MONTANA ENTRIES

Private Pilots

Entry	Location	Aircraft
Pilot—Joan Orley Co. P.—Carol Fraser	Lewistown	Bonanza S
Pilot—Mary Ann Jordan Co. P.—Gerry Arthun	Wilsall	Piper PA 28
Pilot—Helen Dunlop Co. P.—Elsie Childs	Helena	Stinson 108-3
Pilot—Madonna Smith Co. P.—Flo Majerus	Lewistown	Tri-Pacer
Pilot—Carol Schwartz Co. P.—Nita Huber	Anaconda	Bonanza
Pilot—Jo Ann Walden Co. P.—Rosemary Bowman	Great Falls Belt	Mooney Super 21

Commercial Pilot and/or Instrument

Pilot—Suzanne Ward Co. P.—Vivian Schrank	Clyde Park Jordan	Cessna 310J
Pilot—Elsie Johnson Co. P.—Nora Kuhn	Missoula	Cessna 182
Pilot—Laulette Hanson Co. P.—Betty Nunn	Havre Billings	Cessna 182
Pilot—Karin Ribi Co. P.—Pat Roemer	Hamilton Missoula	Cessna 175
Pilot—Pat Ecton Co. P.—Luella Nelson	Manhattan Great Falls	Cessna 172
Pilot—Joan Lyman Co. P.—Mary Stevenson	Hamilton Missoula	Cessna 172
Pilot—Margaret Tuxill Co. P.—Georgiana Ross	Rexford Kalispell	Swift
Pilot—Pearl Magill Co. P.—Bev Ledbetter	Glasgow Havre	Cessna 182



CALENDAR

September 4, White Sulphur Springs — 2nd annual Fly-In Breakfast held in conjunction with Centennial Days and Rodeo.

September 7-8-9, Seattle, Washington — International Northwest Aviation Council Annual Convention. (Olympic Hotel, Headquarters.)

September 10, Kalispell — Kalispell City Airport Dedication.

September 12 & 13, Helena — Montana Aeronautics Commission's monthly meeting.

September 17, West Yellowstone — Western Airlines last scheduled flights. Airline service discontinued for winter months.

September 24, Choteau — Airport Dedication. Barbeque 11:30 A. M. to 1:30 P. M. Dedication Ceremonies will commence at 2:00 P. M.

September 25-28, Oklahoma City, Okla. — National Association of State Aviation Officials annual convention.

September 30, West Yellowstone — Frontier Airlines last scheduled flights. Airline service discontinued for winter months.

October 6-7-8, Glendive — Montana Flying Farmers Fall Convention.

October 8, Harlowton — FLY-IN BREAKFAST.

October 17-22, Hollywood-by-the-Sea, Florida — 12th Annual AOPA Plantation Party and Industry Exhibit, (The Diplomat Resorts and Country Club) Package plans available. Featuring aviation education programs, recreation, general aviation industry exhibits, golf tournament and AOPA Flight Training Clinic. Contact A. F. Frisch, AOPA, 4650 East-West Highway, Washington, D. C. 20014. Ph. (301) 654-0500.

KALISPELL CITY AIRPORT HAS NEW UNICOM

ON 122.8 MC

CALL:

"KALISPELL CITY UNICOM"

REMEMBER:

**Call: "Flathead Unicom"
for Flathead County Airport**

AIRPORT NOTES



By James H. Monger
Assistant Director, Airports

East Glacier

The Montana Aeronautics Commission submitted a request for aid to the Federal Aviation Administration on April 24, 1967 for a new airport to serve Glacier Park. The airport would be located near the town of East Glacier. On August 26, 1967 the FAA informed this office that the East Glacier project was turned down for fiscal year 1968 because the sponsor's funds were not available. The sponsor's funds in this case are to come from the Department of Interior, National Park Service and they were not allocated for fiscal year 1968. The Park Service has appropriated \$45,000 for this fiscal year and the Aeronautics Commission will request this money be made available for land acquisition and site survey. If the transfer of funds is possible, land acquisition could take place late this year or early next year and possibly the National Park Service would appropriate the matching funds so that FAA would consider the request again next year. The FAA reject letter stated as follows: "We regret that because of this factor favorable action could not be taken at this time on the request for aid relating to the above identified airport. At such time as sponsor share funding is firmly established, we will be happy to consider a proposal for airport development at this location."

Butte

The FAA recently announced an allocation to the Silver Bow County Airport at Butte. The allocation is for \$148,044 which would be used as the FAA's 53% grant to extend the main runway from 6850' to 9000'.

Glendive

Glendive made a request for a new airport to the Federal Aviation Administration and they were not approved for the recent fiscal year '68 allocation. The FAA stated that the new airport project is still in evaluation stages and therefore no allocation can be made at this time.

Libby

The FAA recently made an allocation to the joint city-county airport board at Libby for a new airport. The airport would consist of a paved runway 4200' long by 75' wide along with a taxiway and parking apron. The FAA allocation was for \$137,420.

Big Timber

The Montana Aeronautics Commission approved on August 24, a preliminary engineering grant of \$1,000 to the airport board at Big Timber. The Federal Aviation Administration recently announced the appropriation of \$37,057 for the pending project which consists of a paved runway 4650' long by 75' wide. Also included in the project will be the construction of an access road, fencing, taxiway system, and parking apron.

Bozeman

The Montana Aeronautics Commission approved an airport improvement loan to the Gallatin Field Board in the amount of \$30,000. The FAA recently allocated \$215,157 for a project consisting of extending runway 12/30 from 6500' to 7900'. The Gallatin Field Board had requested a total runway length of 8300' but 400' was disallowed by the FAA.

Boulder

Pilots are urged to use caution on the airstrip at Boulder as it is in rough condition. Check the local NOTAMS for possible repair equipment on the airport.

Fort Smith

The Montana Aeronautics Commission is studying the possibilities of taking over the airport at Yellowtail Dam near Fort Smith. This is a paved runway 3827' long by 53' wide. Meetings will be held in the near future with the Bureau of Reclamation and the National Park Service regarding the financing of future improvements, lake access, airport right-of-way, and various other airport administration problems. The Aeronautics Commission will take official action on the matter after the joint meetings have been held.

Evans Hill

Runway markers and a segmented circle were constructed on the emergency public air strip on Evans Hill. Mr. Bob Lueck of Missoula Sky Flight completed this air strip this summer and it will be used as a satellite field for his operation.

Stanford

Construction has started on the

general aviation utility airport at Stanford. Francis Tindall, contractor from Lewistown, was the successful bidder with a bid of \$37,999.50. The runway surface will be paved instead of a stabilized turf, at the request of the contractor. The contractor is adding this improvement to the airport because of his extreme interest in aviation and because of the proximity of the airport to his pavement plant. The paved runway will not cost the State nor the County any additional funds.

Big Fork

A recent site investigation for a new airport to serve the town of Big Fork and Swan Valley was conducted in August. A suitable location was found approximately three miles east of Big Fork. The application for a general aviation utility airport was submitted by the Flathead County Airport Board to the Aeronautics Commission of June 3, 1963. Since that time many locations have been studied but up until now none have proven satisfactory.

Kalispell Hospital Heliport

Bids are still in the negotiating stage for the construction of a heliport adjacent to the Kalispell General Hospital.

Circle

Contractor Gus Albert of Miles City was the successful bidder for the construction of a paved runway on the Circle airport. The bid price was approximately \$50,000. This is a Local, State, and Federal Aid project with the Aeronautics Commission loaning the town of Circle and McCone County \$25,000.

Florence

A site investigation was conducted for a new airstrip adjacent to the town of Florence in northern Ravalli County. The proposed airport would be a private development and would be adjacent to the new subdivision of Forest View. A good location was found and construction is expected to start this fall for a 3500' by 100' paved runway.

Choteau

Base material is now being placed by Cave Construction for the new paved runway on the Choteau Airport. Pilots are urged to check with the flight service NOTAMS on the condition of the Choteau Airport. It is planned that the airport will be completed this year, weather permitting. The Choteau Airport project is a combined Local, State, and

Federal Air project with the Aeronautics Commission loaning the Airport Board \$15,000.

Polson

The new paved runway at Polson is 60' wide and 3500' in length and is now open for traffic. The \$133,000 project was recently completed by Garrick Construction Company of Missoula. This was a Local, State, and Federal Aid project with the Aeronautics Commission loaning the City of Polson and Lake County \$58,587.

Conrad

Snyder Construction Company of Great Falls has completed the two inch asphaltic overlay project on the runway at Conrad. The runway is 3600' by 75' and the total project cost was \$47,062.90. The Aeronautics Commission loaned Pondera County \$10,000 to aid in the financing of this Local, State, and Federal Aid project.

'H' Markers

Low frequency non-directional homer beacons are now being installed by the Montana Aeronautics Commission on airports at Plentywood, Jordan, and Malta.

KALISPELL CITY AIRPORT DEDICATION

Through the efforts of a number of air minded persons of the community the improvement of Kalispell City Airport has been accomplished. Dedication of the new airport will be held on September 10.

A full day of activities has been planned: No host picnic — Dedication Ceremonies 10:00 A.M.—Aerobatic Demonstration by Bob Wills—Static Aircraft displays—Aerial contests, spot landings, ribbon cutting, games and etc. plus 2¢ per pound flights.

Two local flight operators are awarding Ground Courses in addition to the merchandise prizes being donated by Kalispell merchants.

Traffic will be handled by the Civil Air Patrol.

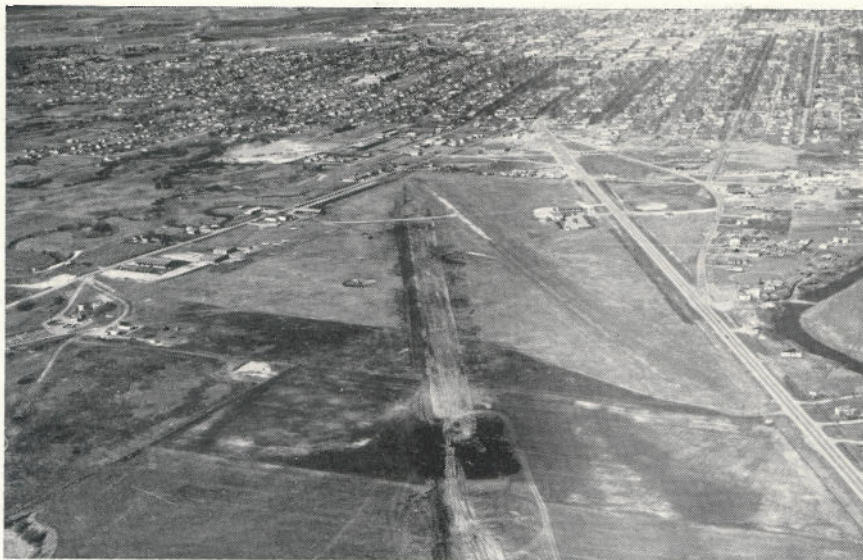
UNICOM 122.8 — Call "Kalispell City Unicom."

Concessions will be available on field.

(Bring own tie downs: Limited number on field).

Hotel, Motel facilities on hand.

Don't Miss—Kalispell City Airport Dedication—September 10.



New Kalispell City Airport just prior to completion. Old strip visible to the right of new runway.

NEWS FROM THE AIRCRAFT COMPANIES CESSNA

Cessna Aircraft Company celebrated an aviation milestone August 4 with the delivery of its 75,000th airplane.

The 75,000th Cessna, a Super Sky-master was delivered 56 years after Clyde Cessna first flew his Bleriot-like monoplane on the salt plains of northern Oklahoma and 39 years after the formation of the Cessna Company.

The bulk of the company's production has been for commercial use. Of the total aircraft built, more than 63,000 have been for the commercial market, while almost 12,000 have gone to the military.

Cessna production has accelerated rapidly in recent years. The 25,000th airplane did not come until 1954, the next 25,000 came nine years after that, and the third 25,000 has been compressed to a period of four and one-half years.

Cessna Company's growth over the years has partially been attributed to the constant growth of the product line to fill a broader segment of its expanding markets. As recently as ten years ago, Cessna marketed only five models of aircraft, including one twin-engine. Today the company builds 28 models of commercial aircraft, including eight twin-engine craft.

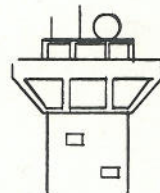
ATTENTION-AIRCRAFT OWNERS AND PROSPECTIVE BUYERS

In our effort to keep Montana Aviation informed of all new available services, we note the inauguration of a new commercial publication "Western Aviation Advertiser."

The new paper is published for the aircraft owners, pilots and the aviation industry of the 16 Western States. Published in Hamilton, Montana, the paper carries advertisements of aircraft, aircraft equipment and employment.

Listed Address:

Western Aviation Advertiser
P. O. BOX 433
Hamilton, Montana 59840



TOWER OPERATIONS

AUGUST 1967

	Total Operations	Instrument Operations
Billings	12,685	1180
Great Falls	12,053	1182
Missoula	11,172	229
Helena	5,119	86

The August traffic count was the highest count ever recorded at Missoula County Airport. Total count exceeded previous high month by 36.3% and exceeded the same period one year ago by 53.5%.

Itinerant count exceeded August 1966 by 82.5%. Tower hours of operation on the Missoula County Airport extended an hour on 8/22/67 to continue until further notice.

A CASE IN POINT

By Charles A. Smith
Commission Attorney

AIRPLANE CRASH — CREATION OF BAILMENT—LANDOWNER'S REFUSAL TO RELEASE AIRPLANE — DUTY TO EXERCISE REASONABLE CARE.

The plaintiff was forced to make a landing due to the exhaustion of his fuel or because of some defect in the plane. He attempted to land at an airport, but by mischance crashed in a neighboring oat field, which constituted part of defendant's farming property. The nose wheel of the plane was torn off, and the craft came to rest on its back after the emergency landing.

Fortunately, the pilot was not injured, and he walked off the field without talking with the defendant. The plane was outfitted with valuable navigating and operational equipment, including a clock, Narco omnigator, a Narco simplexer, and power pack, and 80F power supply amplifier and a battery, all of which were alleged to be of the value of \$1,993.45.

The pilot went on to his home, but flew back the next day with an employee of a corporation whose business included the preservation and recovery of crashed planes. The two examined the overturned aircraft, decided that it would have to be disassembled in order to move it, took the battery out and laid it on the ground, noted that all of the other items of navigating equipment were still present in the plane, and returned to their home field. The field in which the plane was left was muddy, and the airplane could not be removed unless it were dismantled.

The next day, the employee of the corporation went to the ranch and told the owner that he had been authorized by the insurance company to pick up the plane. The employee talked to defendant's brother, who complained that other aircraft had previously crashed on the ranch and had done a lot of damage for which no payment had ever been made. Thereafter, defendant came to the corporate employee's car and refused to permit him to take the plane; the debate became acrimonious and the corporate employee and the defendant's brother engaged in a fist fight.

The corporate employee then went to a nearby town and returned with the county sheriff. The defendant, at the sheriff's request, permitted the employee to remove and take certain parts of the plane. Several days later, a person authorized by the insurance company came to the ranch and, there having been an undertaking to pay defendant his damages, he was permitted to remove the aircraft. In the meantime, however, the valuable equipment which had been attached to the plane had disappeared.

No one had hired a guard or watchman to take care of the aircraft; it was left in the field; numerous persons, known and unknown, visited the scene of the crash from the time it occurred until the removal of the plane by the plaintiff's authorized representative.

When the airplane first landed in the oat field and flipped over on its back, the defendant was not by that fact alone subjected to any liability for its safekeeping. At that moment, although plaintiff's employee entered upon defendant's land without his permission, the pilot was not performing an illegal act, because he was making a forced landing; the plaintiff and the pilot, however, did become responsible to the defendant under the state law for any damage caused thereby.

The remaining question for the court to determine was whether or not the defendant, by preventing the representatives of the plaintiff from entering his land following the crash and by declaring that he was holding the plane until he could secure damages thereby, created a bailment. The court said:

"It appears to us that by his refusal to permit the removal of the airplane until his damages were paid, the defendant could be found to have created a bailment for the mutual benefit of the plaintiff and himself"

The law concerning bailments is that where a bailment is for a mutual benefit, the bailee, in the absence of special contract, is held to the exercise of ordinary care in relation to the subject matter thereof and is responsible only for what has been termed ordinary negligence. The bailee must exercise reasonable care and diligence, or due care and diligence in preserving the property in his keeping.

It was thus found that the defendant assumed the position of a bailee by excluding the plaintiff's representative from his real property and refusing to release the aircraft until payment of his damages should be satisfactorily undertaken. The defendant thereby assumed the duty to exercise reasonable care for the safekeeping of the plane. The defendant did not exercise this duty and was therefore liable to the plaintiff for his damages.

NEW AVIATION PUBLIC RELATIONS COMPANY FORMED

Paul Garrison and Bettye Fry, both pilots well known in General Aviation circles, have formed AVIATION PUBLIC RELATIONS ASSOCIATES (APRA) with headquarters in Los Angeles. This new public relations and publicity service will be available EXCLUSIVELY to aviation businesses.

APRA provides a professional approach to aviation public relations for airports, FBOs', dealers, manufacturers, flight schools, air shows and other aviation concerned businesses and events.

Additional information can be obtained by contacting APRA at P. O. Box 55063, Sherman Oaks, California, 91403, Phone 213, 981-3246.

FEDERAL AVIATION ADMINISTRATION INTINERARY LISTING



Airport	Sept.	Oct.	Nov.	Dec.
Culbertson	.....	4	.....	6
Glasgow	 13	.....	8	.....
Glendive	 28	.....	30	.....
Great Falls	 7	5	9	7
Lewistown	.....	25	.....	20
Miles City	.....	18	.....	21
Missoula	 21	19	16	21
Sidney	 27	.....	29	.....

NOTE: Provisions have been made to give private, commercial and flight instructor and instrument written examinations, ON AN APPOINTMENT BASIS ONLY at the following FAA Flight Service Stations:

Bozeman
Butte
Cut Bank
Dillon

Lewistown
Livingston
Miles City
Missoula

GLEN CHILDS RETIRES AFTER 32 YEARS SERVICE

After 32 years of Federal service, Glen T. Childs retired from his post with the Federal Aviation Administration in Helena.



Glen T. Childs

Glen, a native of Boulder, Colorado, received his schooling in St. Helens, Oregon. He served six years in the U. S. Navy, three years in the U. S. Army as Radioman and Aviation Communications Specialist and three years in the U. S. Air Force Reserve.

In 1942, Glen transferred from the FAA's Flight Service Station in Livingston, Montana. He came to Helena where he has remained with the exception of a three year period while he served with the U. S. Army at Great Falls and Cairo, Egypt.

In 1947 Glen received the FAA's "Outstanding" rating for his efforts as a staff member of the Helena/Combined Station Tower, one of the two facilities in the nation that pioneered the way for some 65 Combined Station/Towers in use today throughout the United States.

Glen has been interested in all aspects of aviation and has taken an active part in Montana's aviation activities. He is an Associate charter member of the Society of Airway Pioneers—A Charter member of the National Association of Air Traffic Specialists—20 year member of the AOPA—20 year member of MPA-Air Traffic Control Association and was Secretary/Treasurer of the Helena Hangar in 1949. Glen has combined his aeronautical interests with his hobby of Photography and recently

won a national photo contest with an unique aerial photo of the Chinese Wall. His wife Elsie, an active pilot, and son Kim, join Glen in his hobbies of skiing, hiking, camping and seeing Montana by air at every opportunity. The Childs will remain in Helena at their residence at 1304 Hauser.

MAC extends the very best wishes and a hearty "THANK YOU" to Glen for his constant cooperation during the past 25 years, and for his sincere interest in Montana Aviation!

CONGRATULATIONS



CERTIFICATES ISSUED RECENTLY TO MONTANA FLYERS

STUDENT

Peck, Harry B.—Garneill
Moore, Willard L.—Powderville
Nye, Dale R.—Presho, S. D.
Rokke, Clyde A.—Glasgow
Snedigar, Larry G.—Enid
Sears, Ronald W.—Billings
Joyce, Joseph Edwin—Geraldine
Wheeler, Gerald E.—Kalispell
Little, Lennea E.—Great Falls
Holden, John D.—Missoula
Galloway, Leon R.—Malmstrom
AFB
Sullivan, Zane K.—Livingston
Thompson, Ronald C.—Big Timber
Oehlerich, Michael A.—Missoula
Poirier, Joseph E.—Shelby
Black, Grady C.—Great Falls
Davis, Norman W.—Kalispell
Ryan, Patrick J.—Columbia Falls
Harris, Richard G.—Bozeman

PRIVATE

Ryden, Donald W.—Omaha, Neb.
Arnett, Max James—Bowman, N. D.
Young, Ronald F. Jr.—Billings
Cochran, Philip W.—Anchorage,
Alaska
Ekern, Paul B.—Lavina
Clark, Kenneth A.—Grass Range
Conklin, Richard J.—White Sulphur
Springs
Buchanan, Robert W.—Billings
Holder, William D.—Cody, Wyo.
Hink, Philip W.—Billings
Ihli, John A.—Billings
Matthews, Emery E.—Sheridan, Wyo.
Ferguson, Michael D.—Billings
McRae, Kurt—Billings

Samuelson, Harry A.—Billings
A. J. Stephens—Miles City
Sullivan, Marshall F.—Broadus
Coxwell, Jonathan E.—Kalispell
Pacheco, Theodore F.—Libby
Hanson, Ernest G.—Martin City
Rose, Carroll J.—Columbia Falls
Abercrombie, Jerry R.—Cut Bank
Teubert, James R.—Fairfield
Larson, Mark A.—Missoula
Mielke, Nancy E.—Missoula
Scott, David O. Jr.—Nome, Alaska
Rigby, John W.—Salmon, Ida.
Keane, James K.—Butte
Lynch, Mary E.—North Fork, Idaho
Danker, Rosemary J.—Hamilton
Roberts, Robert—Hamilton
Lookabaugh, Romney L.—Bigfork
LaVeau, Phillip J.—Helena
Scovel, Larry A.—Missoula
Redenbo, Creighton A.—Ronan
Bauer, Fred L.—Kalispell
Long, John W.—Westminister, Calif.
Derscheid, Bruce J.—Great Falls
Burrows, Gerald C.—Helena
Finstead, Edward L.—E. Helena
Anderson, Francis E.—Whitewater
Else, George G.—Hamilton
Johnson, Herbert J.—Lima
Preston, Wm. J. Jr.—Missoula
Murphy, Elizabeth A.—Butte
Ross, Georgiana M.—Kalispell
Kunkel, Larry J.—Calgary, Alberta
Lawton, Ellen C.—Great Falls
Mikulka, Donald J.—Watertown,
Mass.

COMMERCIAL

McKinney, Clark N.—Ennis
Winden, John O.—Lewistown
Cole, Larry E.—Forsyth
Kingery, Donald L.—Sidney
James, Rock M.—Kodiak, Alaska
Case, Clinton H.—Missoula
Hayes, Roger T.—Missoula
Hall, Kemper W.—Great Falls
Westover, John C.—Mesa, Ariz.
Annala, Robert G.—Great Falls

INSTRUMENT

Cowden, James L.—Moscow, Idaho
Swenson, James D.—Gillette, Wyo.
Zeh, Dennis J.—Bay City, Mich.
Blakeman, William L.—Beulah, Wyo.
Slack, Victor J.—Sheridan, Wyo.
Kingery, Donald L.—Sidney
Biddle, Harry K.—Sheridan, Indiana
Stevens, Richard W.—Ferris, Ill.

MULTI ENGINE

Etchart, Gene J.—Glasgow
Cowden, James L.—Moscow, Ida.
McHolland, Clair L.—Sheridan, Wyo.
James, Rock M.—Kodiak, Alaska
Cole, Larry E.—Forsyth
Fritz, Marvin L.—Sheridan, Wyo.
Price, Harold W.—Billings
Stradley, James D.—Belgrade

Arensmeyer, Walter W.—Choteau
 Stevens, Richard W.—Ferris, Ill.
 Annala, Robert G.—Great Falls (LCT)

FLIGHT INSTRUCTOR

Mitchell, Parke R.—Billings
 James, Rock M.—Kodiak, Alaska
 Cowden, James L.—Moscow, Idaho
 Zeh, Dennis J.—Bay City, Mich.
 Ellis, Gary E.—Billings
 Hayes, Roger T.—Missoula
 Chambers, William R.—Helena
 Patton, Dennis J.—Great Falls

FLIGHT INSTRUCTOR INSTRUMENT

Voorhees, Harry K.—Glasgow
 Cowden, James L.—Moscow, Idaho
 Zeh, Dennis J.—Bay City, Mich.
 Woltermann, Gary G.—Columbus

GROUND INSTRUCTOR

Hafer, Ann N.—Billings
 Bergsieker, Joseph E.—Kalispell

ADVANCED GROUND INSTRUCTOR

Cook, Craig C.—Hamilton
 Jones, Roger E.—Helena

FI GOLD SEAL

Rothrock, James H.—Billings
 Cook, Craig C.—Hamilton

MASTER PARACHUTE RIGGER

Smith, Dwight P.—Missoula

SENIOR PARACHUTE RIGGER

Driggs, Ronald L.—Great Falls (back
and chest)

SPECIAL TYPE RATINGS

Biehl, Floyd L.—Lewistown TBM-3
 Page, John D.—Troutdale, Ore.
 Grumman TBM
 Stevens, Richard W.—Ferris, Ill. DC-3

AIRFRAME MECHANIC

Simpson, Robert C.—Lewistown

FRONTIER AIRLINES MONTANA TRAFFIC INCREASES

In Montana, the ten Frontier-served communities generated 4,975 passengers, a gain of 38%.

Locations showing an increase were:

Billings	2,816	pass.—up	27%
Glasgow	230	pass.—up	53%
Glendive	94	pass.—up	24%
Gt. Falls	1,181	pass.—up	17%
Lewistown	178	pass.—up	112%
Miles City	190	pass.—up	79%
Sidney	135	pass.—up	18%
Wolf Point	87	pass.—up	43%
Yellowstone (new 1967)	444	pass.	

FAA INSPECTORS' CORNER



By Arthur A. Kurth,
 GA Inspector, GADO No. 9

The following remarks are actual excerpts from a pilot's written report of an accident. "I was climbing at an airspeed of 60 MPH, and started a climbing turn to the right. The wind now became a crosswind instead of a headwind. This caused the airplane to stall—to recover from the stall I turned the aircraft back into the wind . . . (Later) . . . I was in a quartering tailwind from the right . . . Went into a second stall . . . This is all I remember."

This pilot had over 100 hours, yet stalled and crashed due to an apparent misuse of the controls at low airspeed. The point is that AIRSPEED is the only speed which holds any significance for an airplane. Once it is off the ground it is contained in air mass and feels nothing but its own speed through the air. It makes no difference what its speed is in relation to the ground. It should be remembered however, that TURBULENCE, gusts or wind sheer can lead to stalls even though airspeed is being maintained above stall speed. When these conditions are encountered, the pilot should reduce his airspeed to the recommended maneuvering speed or, rough air penetration speed which will still allow a safe margin for stalls.

We have had several accidents in the CE-GADO-9 area because the pilot failed to realize the significance of flying on the back side of the power performance curve. Remember, if you are operating out of short fields with high density altitude, you must at the beginning of the take off run, accelerate your aircraft during the initial ground run to an airspeed well above the stall speed of the aircraft before rotating. This will enable you to accelerate to the best angle of climb airspeed, which is necessary to clear obstacles instead of mushing along in ground effect and failing to clear the obstacle.

If you intend to fly into some of our beautiful primitive area landing

strips, **First study your aircraft performance capability.** Now ask around and absorb some advice from the experienced mountain pilot as to how the aircraft should be operated into and out of your intended landing strip. Why do this? Because this is just extra insurance for a safe arrival and departure.

Don't be a sucker and laugh at the old fuddy duddy that sits around and waits for late evening or early morning before taking off from that high mountain strip, because he knows by experience that even though you may get off the ground you could encounter turbulence and down drafts that can suck you down into the trees. Prick up your ears, LISTEN AND LIVE. The good Lord created some creatures with long ears, a back built for a pack saddle and a bray that could be heard for a mile and everytime you, as a pilot, ignore good pre-flight preparation and sound advice from someone with experience, you are in effect getting yourself all saddled up for an accident, reflecting sheer stupidity.

Now, in conclusion, if you are mad enough to take exception to this dissertation and feel that a good bull session would clear the atmosphere, you are invited to drop into our office and discuss the matter. We will be only too happy to pass on our experience to you for free, and possibly help to reduce the accident record. Until then, Happy, Safe Flying under the Big Sky.

FAA PROPOSAL OF NEW SPEED LIMIT

A maximum speed of 250 knots (288 miles per hour) has been proposed by the Federal Aviation Administration for all aircraft operating **below 10,000 feet** mean sea level (MSL) in a move designed to give pilots more time to "see and avoid" other air traffic in the nation's most heavily traveled airspace.

Deadline for comments on the notice of proposed rule making (Docket No. 8367; Notice 67-39) is October 30, 1967. Comments should be submitted in duplicate to FAA, Office of General Counsel, Attention: Rules Docket, GC-24, 800 Independence Avenue, S.W., Washington, D.C. 20590.

GOVERNOR APPLAUDS ANACONDA'S AIRPORT FACILITY

Governor Tim Babcock was one of several hundred persons attending the Dedication of the new airport at Anaconda on August 20th. The 4500 foot, paved airport is located 3½ miles north of Anaconda on Highway 48.

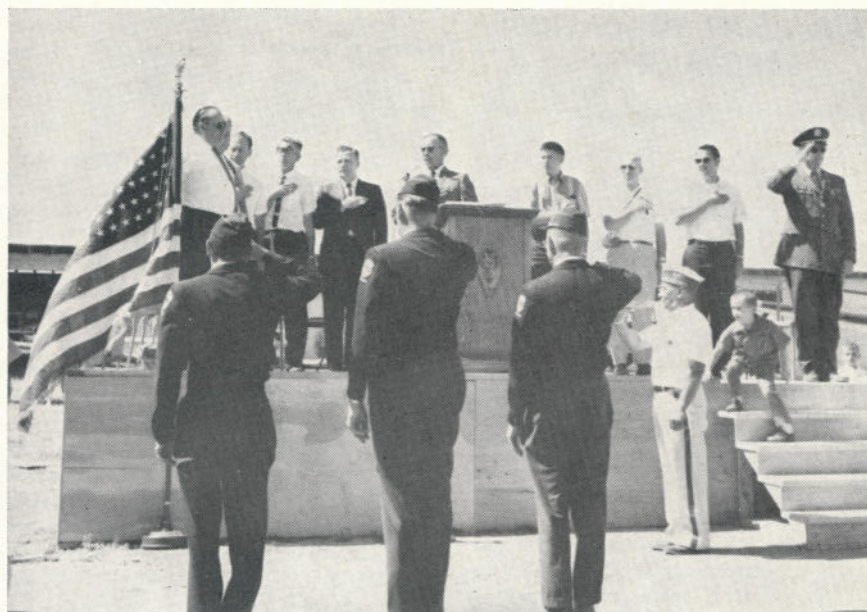


Governor Babcock accented the importance of an airport to a community during his dedication message. Shown seated to the left of the Governor is Mr. Edward Eck, Chairman of the Anaconda Airport Commission.

Prior to the ceremonies, a delicious breakfast was served to over one hundred persons by the local Jay-Cees. A variety of good entertainment was provided and included: The Montana Army National Guard executing formation flying demonstrations in eight O1As and four helicopters — Al Newby performed an aerobatic demonstration in a Great Lakes Trainer which literally "thrilled" all onlookers — The Anaconda Elks' Drum and Bugle Corps was followed by several musical numbers by the Anaconda High School's Soldiers and Sailors Memorial Band.

The Ceremonies were opened by the Color Guard, the playing of the National Anthem and the Invocation by Rev. W. L. Roset.

Mr. William Brolin did a very fine job as Master of Ceremonies. He commenced with an acknowledgment of the initial owners of the airport, Mr. Ned Harrison and Dr. Ferguson. He commended the city commissioners and the airport board members for their effort and foresight and



Speakers platform, left to right: County Commissioner Donald Gates; Mayor Henry Lussy; Governor Tim Babcock; County Commissioner Fred Vaniska; Rev. W. L. Roset; Master of Ceremonies William Brolin; Airport Commissioner Edward Eck, (not visible); David Rask of FAA; Joe Maierle of Morrison & Maierle, Inc.; James Monger, Assistant Director, MAC; Worthie Raucher, MAC.

extended appreciation for the assistance of the Federal Aviation Administration and the Aeronautics Commission in making this facility a reality. He complimented the companies concerned in the construction of the airport, Morrison and Maierle, Inc., Consulting Engineers of Helena, Naranche and Konda Construction Company of Butte and Midland Electric of Billings.

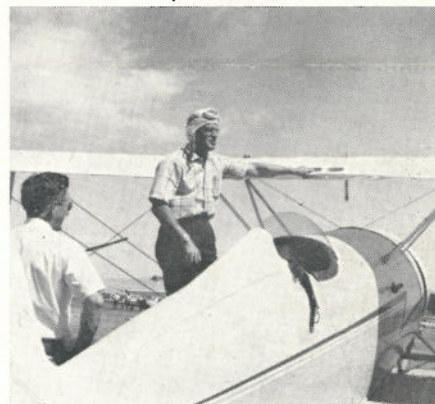
Governor Babcock in his comments remarked that he fully appreciated the impact of an airport to a community, applauded the efforts of those participating and stated that he was extremely pleased that the State could be a part of this latest accomplishment. The Governor made the presentation to Mayor Lussy of Anaconda of an enlarged aerial photo of the community from the State Highway Department.

Mr. Brolin made the official dedication of the airport which was acknowledged by Mr. Edward Eck, Chairman of the Airport Board.

Closing the day's activities, Mr. Newby gave the second portion of his aerobatic show and a capable group of jumpers from Helena and Anaconda gave the crowd a fine demonstration of sky diving.

The Dedication Committee certainly had a well planned day. The community and all participating groups, agencies, individual companies can

be proud of this new addition to Montana's airports.



Al Newby prior to his aerobatic performance in his Great Lakes Trainer visits with MAC's Chief Pilot, Dick Baldwin.

STATISTICS

Will your **first** accident be your last day alive?

61/37
65/22
78/18
50/16

ACCIDENT TOTAL FATALITIES

1964 Total	61	37
1965 Total	65	22
1966 Total	78	18
1967 Total	50	16

AVIATION EDUCATION HIGHLIGHTS



By C. R. "Ron" Adams
Supervisor of Aviation Education

On August 17, I journeyed to the La Crosse, Wisconsin area. My purpose in making this trip was to observe and discuss with school officials, the Onalaska High School Aviation Science Project.

Onalaska, Wisconsin is a community of approximately 3500 population, about five miles northeast of La Crosse.

In May 1966, Onalaska High School received approval from the Office of Education to proceed with a program in aviation science, under the provisions of Title III of the Elementary and Secondary Education Act. It is a three year program and the only one of its kind financed by federal funds.

During the 1966-1967 school year the Onalaska program had 40 students enrolled. This school year, 1967-1968, they will triple their enrollment to 120 students.

To me, the most significant aspect of their entire program, is their inclusion of ten hours of flight instruction for each student. This has really generated the student interest in the program. They are not trying to make pilots out of their students by any means, but they do feel as we in Montana do, that there should be some form of flight experience incorporated with an aviation science course.

An interesting sidelight to the flight training was revealed by the classroom instructor to me. The flight operator involved reported that his gross business since starting to fly the Onalaska students, had doubled that of the previous year. This was not counting the students from the high school program. This is certainly some "food for thought" in implementing flight experience into Montana's high school programs.

Last year, Onalaska invited two other high schools to participate in the project. Only one school was able to accept. This year, six high

schools will be involved, including both parochial and public high schools. Each school will have their students bussed to Onalaska for their classroom work.

One of the most common objections to implementing an aviation science course is the supposedly high cost. In a small high school, this is a common problem plus the small class enrollment. Well, Mr. Superintendent, Mr. Principal, Mr. and Mrs. Schoolboard, here is a solution worth looking into. Combine with a neighboring school. This would lower your school's cost of such a program and you would have enough students in a class to make it feasible and worthwhile to teach. Onalaska has tried it and found that it works. So much so, that they are going to expand it. Think it over!

In their one year of operation Onalaska High School has come up with some innovations and techniques we can utilize here in Montana. I am sure that during the course of our discussions the Onalaska people got some ideas from Montana that they can implement into their program. We need to have more exchanges of this type, whereby we can eliminate the weaker points and adopt the best points of all the aviation science curriculums in operation. In this way we can design one good program that can be used by any school.

Onalaska High School has a fine program and from this pilot project will come some very valuable information. Information that will assist schools in establishing and conducting an aviation science course. However, as fine as Onalaska's program is, the Montana schools do not have to yield to any other school or program. We too are doing a fine job and I can see nothing but progress for us in the future.

CHOTEAU TO DEDICATE NEW AIRPORT

September 24th is the date set by the Choteau Chamber of Commerce for the Dedication of the new City-Country Airport.

BARBEQUE WILL BE SERVED FROM 11:30 to 1:30 P. M.

DEDICATION CEREMONIES WILL COMMENCE AT 2:00 P. M. The committee in charge of dedication program is Jack Rogers, Bob Taylor, and John Nordhagen.



Two new films have been added to the Commission Library and are available for immediate distribution:

"DENSITY ALTITUDE"—16mm, 30 minutes, color, sound.

This film is a "must" for general aviation pilots planning cross-country flights particularly into unfamiliar airports. It gives an excellent presentation on the very important subject of operating out of high altitude airports on hot days. In addition "Density Altitude" includes some of the finest and most beautiful pictures of light plane flying in mountainous terrain.

"USING THE AIR SPACE: Navigations and Communications"—16mm, 20 minutes, color, sound.

The film employs a combination of animation and in-flight motion picture photography, actual sound and dubbed narration to put across a comprehensive academic lesson in the use of aircraft radio navigation equipment.

It presents for the student a comprehensive explanation of what aeronautical facilities are available to the general aviation pilot, showing what each facility looks like, and illustrates how they may be used most effectively. It depicts in motion picture form what happens in actual flight—how the omni needle deflects and aligns when flying a VOR radial; what happens when the plane passes over the omni station; flying by automatic direction finder; operating within a control zone; what takes place in the control tower and landing with the aid of an instrument landing system.

* * *

The Aeronautics Commission Sanderson Private Pilot and Instrument Courses are now open for bookings to aviation groups.

* * *

The film "Montana and The Sky" is available for out-of-state showings.

* * *

A brochure listing the materials in the Commission's Film Library will be sent upon request.

* * *

NOTE: When requesting films, please include complete mailing address and if alternate dates or films may be used.

FAA INSTRUMENT PILOT EXAM-O-GRAM NO. 18 "RATE OF TURN"

Many applicants who take FAA Instrument Written Examinations misinterpret the Turn and Slip Indicator and lack an understanding of the relationship between airspeed, angle of bank, and rate of turn. The purpose of this Exam-O-Gram is to remove some of this confusion.

Misinterpretation of the turn and slip indicator is caused by two major factors: (1) The marking and legend on the face of the instrument, and (2) misinterpretation of the "ball" (or slip/skid indicator). In general appearance, turn and slip instruments can be divided into two types: One having a center index only (see illustrations A and D of Figure 1), and the other having a center index and a two-needle-width deflection mark (doghouse) on either side (see illustrations B and C). A one-needle-width deflection on instruments having only the center index indicates a standard rate turn (3° per second). Instruments with doghouses may have different legends, e.g. "2-Min. Turn," "4-Min. Turn," "Turn and Bank;" regardless of the legend, if the instruments are properly calibrated, a one-needle-width deflection indicates a turn of 1.5° per second. A standard rate turn (3° per second) is indicated when the needle is aligned with the doghouse.

The turn needle indicates the "quantity" of the turn and is completely independent of the "ball." If the turn needle is properly calibrated, it shows the correct rate of turn **regardless** of the position of the ball. The ball indicates the "quality" of the turn. If the turn needle indicates a turn and the ball is not centered, the pilot is using no pressure on the rudders, then the airplane is out of trim or rig. In this case, the pilot will have to use rudder pressure to center the ball and opposite aileron to keep the rate of turn constant. If the turn needle is centered and the ball is "out of center," the airplane is flying in a slip or wing low attitude. In airplanes without rudder trim, it is often necessary to hold rudder to center the ball; in this case the rudder is being used as a trimming device.

Assuming that the instruments in Figure 1 are properly calibrated and

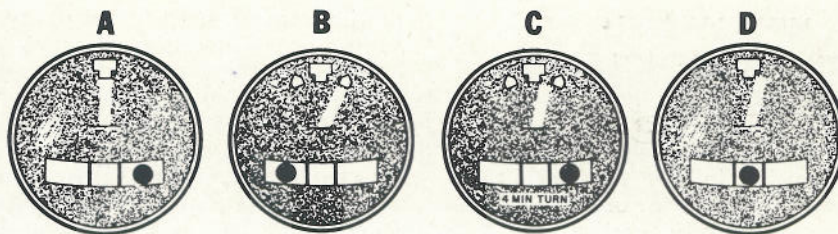


Figure 1.

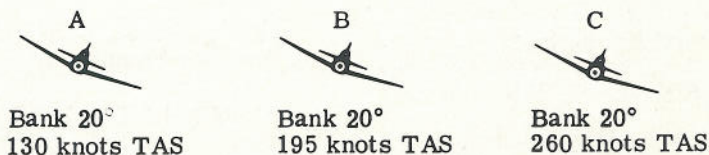


Figure 2.

the airplane is properly trimmed for the speed and power setting, **WHAT IS THE "RATE OF TURN" INDICATED BY EACH OF THE ILLUSTRATIONS, AND WHAT DOES THE BALL INDICATE?**

ANSWERS:

Needle—A. 0° —no turn.

Ball—The ball indicates that the right wing is low. The pilot is holding left rudder.

Needle—B. 3° per second.

Ball—The ball indicates a skidding turn. If this occurs during the roll into a turn, the pilot is using too much right rudder; if the bank is already established, he is holding right rudder.

Needle—C. $1\frac{1}{2}^\circ$ per second.

Ball—The ball indicates a slipping turn. If the pilot is rolling into a turn, he is not using enough right rudder; if the bank is established, he is holding left rudder.

Needle—D. 3° per second.

Ball—The ball indicates a coordinated turn.

Pilots should also understand the relationship of true airspeed and angle of bank to both rate of turn and radius of turn. Figure 2 shows three airplanes flying with the same bank at different airspeeds.

WHICH AIRPLANE HAS THE GREATEST RATE OF TURN?

ANSWER

Airplane A, having the slowest airspeed and consequently the shortest radius of turn, has the greatest rate of turn.

Many people are misled into think-

ing that the fastest airplane would complete a 360° turn in the least time. This is not so! For example, one of our high speed jets flying at a true airspeed of 1,750 knots, and utilizing the 20° bank of Figure 2, would require approximately $26\frac{1}{2}$ minutes to complete a 360° turn. Contrast this with the 2 minutes it would take airplane A to complete a 360° turn with a bank of 20° and an airspeed of 130 knots.

Most pilots know that the radius of turn increases with an increase in airspeed, but do not know the ratio of this increase to the airspeed. If the radius of turn increased in the same ratio as the airspeed, then the rate of turn would remain constant. The actual radius of turn, however, varies as the square of the true airspeed. Therefore, since the speed of airplane C is twice that of airplane A, the radius of turn of airplane C will be 4 times that of airplane A: (2 squared = 4). Consequently, it would take airplane C twice as long to complete a 360° turn, since C will travel four times as far as A but is moving only twice as fast.

HARLOWTON FLY-IN

On October 8—Harlowton will hold a FLY-IN BREAKFAST sponsored by the local Chamber of Commerce. Transportation will be provided from the Airport to the Country Club. Breakfast will be held in the dining room of the Club.

WHIRLY-GIRLS TO AWARD SCHOLARSHIP

Applications are now being accepted for the first Doris Mullen Whirly-Girls Scholarship, which will be awarded in January 1968 to a deserving woman for use toward obtaining a helicopter rating.

The \$500 Scholarship was established in 1966 by The Whirly-Girls, international organization of women helicopter pilots, in honor of Mrs. Doris Mullen, who was fatally injured in an airplane accident on July 24, 1966.

The Scholarship will be awarded to the applicant who best typifies the high standards of women in aviation personified by Doris Mullen. Applicants must hold a current pilot license, must intend to make use of

the helicopter rating in such way as to further the involvement of women in aviation, and must demonstrate that they require financial assistance to obtain the helicopter rating.

Deadline for receipt of applications is **October 1, 1967**. Application blanks may be obtained from Whirly-Girls, Suite 700, 1725 DeSales St., N.W., Washington, D.C. 20036.

MONTANA UNICOM STATIONS

OPERATING ON 122.8 M.C.

Anaconda	Glasgow
Ashland	Glendive
Babb	Hamilton
Big Timber	Harlowton
Boulder	Havre
Bridger	Jackson

Browning	Jordon
Chester	Laurel
Chinook	Libby
Choteau	Gallatin Gateway
Columbus	Plentywood
Condon	Poplar
Conrad	Polson
Culbertson	Red Lodge
Dell	Roundup
East Poplar	Scobey
Ethridge	Shelby
Fairfield	Sidney
Flathead County	Sweetgrass
Forsyth	Townsend
Fort Benton	West Poplar
Gardiner	West Yellowstone
Geraldine	Wolf Point

OPERATING ON 123.0 MC

Bozeman	Lewistown
Butte	Missoula
Helena	

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NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE:—"To foster aviation as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in **research, development, and advancement of aviation**; to develop uniform laws and regulations; and to otherwise encourage co-operation and mutual aid among the several states."

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